



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

SW

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,613	09/29/2003	Murray W. Mahoney	02RSC064	2554

7590 12/16/2004

ROCKWELL SCIENTIFIC COMPANY LLC  
Mail Code A 15  
P.O. Box 1085  
Thousand Oaks, CA 91358-0085

EXAMINER

HUNTER, ALVIN A

ART UNIT	PAPER NUMBER
----------	--------------

3711

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/673,613

Applicant(s)

MAHONEY, MURRAY W.

Examiner

Alvin A. Hunter

Art Unit

3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (USPN 5024437) in view of Thomas et al. (USPN 5460317) and Igarashi (USPN 5437088).

Regarding claims 1, 8, 14, 16, and 18, Anderson discloses club head wherein the club head is fabricated with a metallic face and the face is welded thereon (See Entire Document). Though not explicitly disclosed, one having ordinary skill in the art is aware that after welding the workpiece is machined to remove the flashes formed during the welding in order to smoothen out the surface. Anderson does not disclose the type of welding process used or how the grooves shown in Figure 5 are fabricated. Thomas discloses a friction stir welding process in which reduces oxidation (See Abstract). One having ordinary skill in the art would have found it obvious to friction stir weld the face onto the club head, as taught by Thomas et al., in order to reduce the oxidation of the workpiece. Igarashi discloses a club face in which has been resurfaced to provide a surface topology to enhance backspin and reduce sidespin (See Abstract). One having ordinary skill in the art would have found it obvious to resurface the clubface, as taught by Igarashi, in order to optimize the spin of the golf ball.

Art Unit: 3711

Regarding claims 2 and 9, Anderson discloses the club head comprising titanium copper, or aluminum (See Abstract).

Regarding claims 3 and 11, Anderson discloses the clubhead being casted and/or forged (See Column 2, lines 21 through 62).

Regarding claims 4 and 12, Thomas et al. discloses the friction stir welding being performed on an aluminum alloy at 800 to 1500 rpm using a FSP (See Column 4, lines 50 through 64).

Regarding claims 5 and 13, Thomas et al. discloses the friction stir welding being performed at 190 to 370 mm/minute using a FSP tool (See Column 4, lines 50 through 64).

Regarding claim 6, Igarashi discloses the resurfacing step including milling (See Abstract).

Regarding claims 7 and 17, Igarashi et al. discloses the desired surface topology including at least one groove (See Abstract).

Regarding claim 10, Anderson shows the metal workpiece being a plate (See Figure 3).

Regarding claim 15, Applicant does not disclose why it is critical for the resurfacing process to be performed before the fabrication process in order to attain the invention. One having ordinary skill in the art would have concluded that the resurfacing process could be performed at anytime so long as the face has the topology desired by the user.

### ***Conclusion***

Art Unit: 3711


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is (571) 272-4411. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Vidovich, can be reached on 571-272-4415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AAH

Alvin A. Hunter, Jr.

  
GREGORY VIDOVICH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700